

Patent Claims

1. A connector (1) for flat flex cables (2) with a housing (3), in which is provided: at least one introduction opening (4) for a flat flex cable end, spring contacts (5) for connecting the at least one flat flex cable (2) with contacts (6) or another

flat flex cable (7) and at least one strain relief (8),

is hereby characterized in that

the strain relief (8) has a slide (9), which is introduced into the introduction opening (4) over the flat flex cable (2), wherein the flat flex cable (2) is bent by a rib (10) on slide (9) into a recess (11) at the bottom of the introduction opening (4) until the slide (9) locks in its final position on housing (3).

2. The connector according to claim 1, further characterized in that the slide (9), proceeding backward from its tip, forms a ramp (12), whose back end projects above the level of the opening during introduction into the opening (4) and slides on the upper edge (13) of the opening of the introduction opening (4), whereby the rib (10) is pressed into the recess (11).

3. The connector according to claim 1 or 2, further characterized in that the slide (9) has, on its back end, an operating surface (14) for pressing it in, at the upper edge of which is disposed a shoulder (15) for the locking of ramp (12).

4. The connector according to one of the preceding claims, further characterized in that the spring contacts (5) at the head end of the introduction opening (4) prestressed perpendicular to its longitudinal axis press on regions of the conductive tracks of the flat flex cable (2) that are stripped of insulation.

5. The connector according to claim 4, further characterized in that the spring contacts (5) are essentially bent in U-shape and their legs (5a) located away from the flat flex cable (2) are pressed onto the flat flex cable (2) by two ramps (9a) on slide (9).

6. The connector according to claim 4 or 5, further characterized in that the spring contacts (5) are formed on their ends pointing away from the introduction opening (4) as female connectors (16) or plug contacts.

7. The connector according to claim 4 or 5, further characterized in that the spring contacts (5) are bent in U-shape at both of their ends and two introduction openings (4, 4') are disposed with their head ends abutting one another in housing (3) for connecting two flat flex cables (2, 7).

8. The connector according to one of claims 1 to 6, further characterized in that the introduction opening (4) takes up two flat flex cables (2, 7), and two rows of spring contacts (5, 5') are provided one above the other.

9. The connector according to claim 8, further characterized in that the spring contacts (5, 5') are held by an intermediate member (17) in the introduction opening (4), and this member can be

moved to the head end of the introduction opening (4) by a slider (18) and can be propped open at its back ends (19a, 19b), in order to press strain relief projections (20) disposed therein into corresponding openings (21) punched in the flat flex cables.

10. The connector according to claim 9, further characterized in that at the level of openings (21) in the flat flex cables, housing (3) has slots (22), into which the strain relief projections (20) of intermediate member (17) can be moved.

11. The connector according to one of claims 8 to 10, further characterized in that the spring contacts (5, 5') are bent convexly at their legs (5b) that can be pressed onto flat flex cables (2, 7) and are pressed by shoulders (17a) of intermediate member (17) onto the flat flex cables (2, 7).

12. The connector according to claim 11, further characterized in that on its head end, the intermediate member (17) has ramps (17b), with which the legs (5a) of spring contacts (5) located away from the flat flex cables (2, 7) are to be pressed onto the flat flex cables (2, 7).

13. The connector according to one of claims 8 to 12, further characterized in that the slide (18) can be locked in its final position on housing (3).